THAT WHICH IS CLAIMED:

1. A method for modulating the expression of a first target sequence in a plant cell, said method comprising transforming said plant cell with an RNA precursor construct, said construct comprising a first promoter that drives expression in a plant cell operably linked to a first nucleotide sequence encoding a precursor RNA, said precursor having at least one miRNA sequence incorporated into the precursor RNA sequence, wherein said miRNA sequence is complementary to a portion of said first target sequence.

2. The method of claim 1, wherein said first target is an endogenous plant sequence.

3. The method of claim 1, wherein said first target is an exogenous sequence.

4. The method of claim 1, wherein said first target sequence is selected from the group consisting of genes involved in the synthesis and/or degradation of proteins, peptides, fatty acids, lipids, waxes, oils, starches, sugars, carbohydrates, flavors, odors, toxins, carotenoids, hormones, polymers, flavinoids, storage proteins, phenolic acids, alkaloids, lignins, tannins, celluloses, glycoproteins, and glycolipids.

5. The method of claim 1, wherein said first promoter is selected from the group consisting of a constitutive promoter, tissue-preferred promoter, and an inducible promoter.

6. The method of claim 1, wherein said plant cell further comprises a DNA construct comprising a second promoter that drives expression in a plant cell operably linked to a second nucleotide sequence encoding a modulator.

7. The method of claim 6, wherein said modulator is selected from the group consisting of HC-Pro, the 2b protein of cucumber mosaic virus (CMV), HC-Pro of potato virus Y (PVY), and rg-CaM.

8. The method of claim 7, wherein said second promoter is selected from the group consisting of a constitutive promoter, tissue-preferred promoter, and an inducible promoter.

9. The method of claim 6, wherein said plant cell further comprises an amplicon, said amplicon comprising a targeting sequence that corresponds to a second target sequence.

10. The method of claim 9, wherein said second target sequence is an endogenous plant sequence.

11. The method of claim 9, wherein said second target sequence is an exogenous plant sequence.

12. The method of claim 10, wherein said second target sequence is selected from the group consisting of those involved in agronomic traits, disease resistance, herbicide resistance, and grain characteristics.

13. The method of claim 9, wherein said second target sequence is selected from the group consisting of genes responsible for the synthesis of proteins, peptides, fatty acids, lipids, waxes, oils, starches, sugars, carbohydrates, flavors, odors, toxins, carotenoids, hormones, polymers, flavonoids, storage proteins, phenolic acids, alkaloids, lignins, tannins, celluloses, glycoproteins, and glycolipids.

14. The method of claim 11, wherein said second target sequence is selected from the group consisting of retinoblastoma protein, p53, angiostatin, leptin, hormones, growth factors, cytokines, insulin, growth hormones, alpha-interferon, beta-glucocerebrosidase, serum albumin, hemoglobin, and collagen.

15. The method of claim 14, wherein said second target sequence encodes a mammalian protein.

16. The method of claim 9, wherein said amplicon further comprises a DNA sequence corresponding to at least a portion of a viral genome.

17. The method of claim 16, wherein said amplicon further comprises a third promoter that drives expression in a plant cell operably linked to the targeting sequence.

18. The method of claim 17, wherein said third promoter is selected from the group consisting of a constitutive promoter, tissue-preferred promoter, and an inducible promoter.

19. The method of claim 18, wherein said first target sequence or said second target sequence is selected from the group consisting of genes responsible for the

synthesis of proteins, peptides, fatty acids, lipids, waxes, oils, starches, sugars, carbohydrates, carotenoids, hormones, and storage proteins.

20. A plant stably transformed with an RNA precursor construct, said RNA precursor construct comprising a first promoter that drives expression in a plant cell operably linked to a first nucleotide sequence encoding a precursor RNA, said precursor having at least one miRNA sequence incorporated into the precursor RNA sequence, wherein said miRNA sequence is complementary to a portion of a first target sequence.

21. The plant of claim 20, further comprising a DNA construct comprising a second promoter that drives expression in a plant cell operably linked to a second nucleotide sequence encoding a modulator.

22. The plant of claim 21, further comprising an amplicon, said amplicon comprising a targeting sequence that corresponds to a second target sequence.

23. A plant cell stably transformed with an RNA precursor construct, said RNA precursor construct comprising a first promoter that drives expression in a plant cell operably linked to a first nucleotide sequence encoding a precursor RNA, said precursor having at least one miRNA sequence incorporated into the precursor RNA sequence, wherein said miRNA sequence is complementary to a portion of said first target sequence.

24. The plant cell of claim 23, further comprising a DNA construct comprising a second promoter that drives expression in a plant cell operably linked to a second nucleotide sequence encoding a modulator.

25. The plant cell of claim 24, further comprising an amplicon, said amplicon comprising a targeting sequence that corresponds to a second target sequence.

26. Transformed seed of the plant of claim 20.